

IQSDA35

Dual-channel 3G/HD/SD-SDI Reclocking Distribution Amplifier with Selectable Outputs

Provides emergency changeover functionality and the flexible selection of inputs allows single- or dual-channel operation.

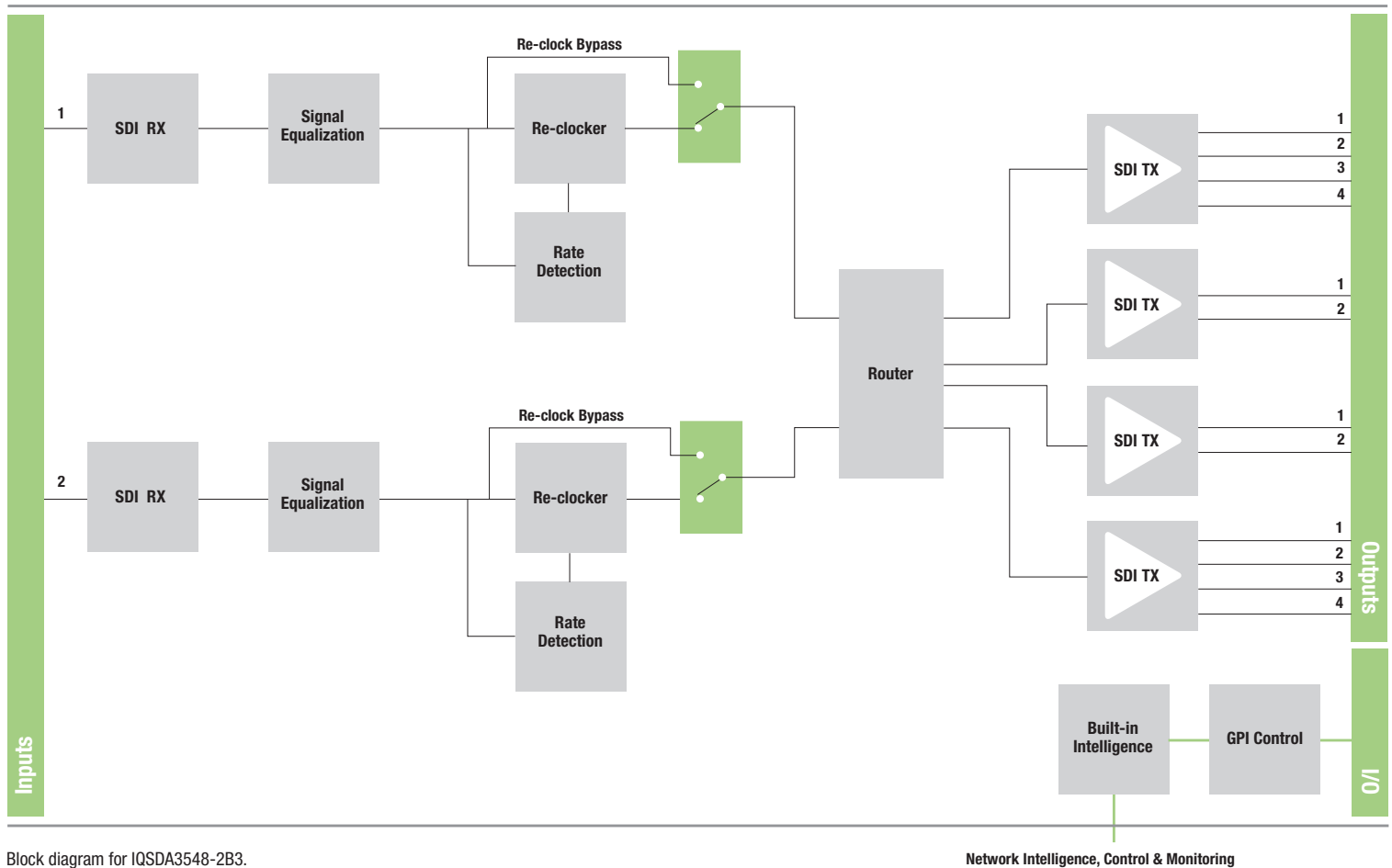
The IQSDA35 from Grass Valley provides dual-channel distribution for HD-SDI 3 Gb/s, 1.5 Gb/s or 270 Mb/s SD-SDI signals with flexible routing of inputs to outputs. Input signal loss detection enables switching from a main to back-up feed automatically, providing emergency changeover functionality. Flexible output selection enables the IQSDA35 to be used either as a single-channel DA with 12 outputs, or in dual-channel mode with six outputs per input.

Why should you choose this module?

- Outputs can be grouped for selection from either input allowing flexibility for expansion or changes in distribution requirements
- Input loss detection enables automatic switching between inputs to provide emergency back-up changeover functionality
- Emergency input to output bypass option allows added protection for critical signal paths or 24/7 operations
- Full GV Orbit compatibility provides an all-inclusive remote configuration, control and monitoring solution
- Comprehensive SNMP support allows easy integration with third-party Network Management Systems

KEY FEATURES

- Single- or dual-channel 3 Gb/s SDI, HD-SDI and SD-SDI re-clocking distribution amplifier
- Flexible selection of inputs allows single- or dual-channel operation
- Input signal monitoring allows auto-changeover functionality to provide emergency switching
- Equalizes up to 70m at 3 Gb/s, 140m at 1.5 Gb/s and 350m at 270 Mb/s when using Belden 1694A cable
- Standards supported:
 - 3G-HD to SMPTE ST 424
 - HD-SDI to SMPTE ST 292
 - SD-SDI to SMPTE ST 259-C
- Emergency input bypass option enables the SDI input signal to be passed through to SDI output 1 in the event of frame power failure or module removal
- GV Orbit control and monitoring compatible



Block diagram for IQSDA3548-2B3.

Network Intelligence, Control & Monitoring

SPECIFICATIONS

Inputs and Outputs

Signal Input

SDI input: 2x

Input cable length:

- Up to 70m Belden 1694A @ 3 Gb/s
- Up to 140m Belden 1694A @ 1.5 Gb/s
- Up to 350m Belden 1694A @ 270 Mb/s

Note: When using mixed HD and SD inputs it is recommended that cable lengths do not exceed the HD specification of 140m.

Signal Outputs

SDI outputs: 12x group selectable per input

ASI compatible outputs:

- IQSDA3547-1A/B – Serial out 1/1, Serial out 2/1, 2/2
- IQSDA3548-2A/B – Serial out 1/1, 1/4, Serial out 2/1, 2/2, Serial out 3/1, Serial out 4/2
- IQSDA3562-2B – Serial out 1/4, Serial out 2/2, Serial out 3/1, Serial out 4/2

Control Interface

GPI: Up to 2x GPI (I/O configurable)

Electrical: TTL compatible, active low driven

Connector/format: BNC/75Ω panel jack on standard Grass Valley connector panel

Controls

Indicators

Power: OK (Green)

CPU: OK (Green flashing)

Input 1: OK (Green), Bypass (Orange), Loss (Red)

Input 2: OK (Green), Bypass (Orange), Loss (Red)

Reclock bypass: On/Off

Output 1 select: Input 1, 2

Output 2 select: Input 1, 2

Output 3 select: Input 1, 2

Output 4 select: Input 1, 2

Input status: Present, Loss, Unknown, Data Rate

Logging:

Input 1 (2) Type

Input 1 (2) Data Rate

Input 1 (2) Present

Input 1 (2) Error

Input 1 (2) Loss

RollTrack controls: On/Off, Index, Source, Address, Command, Status, Sending

RollTrack outputs:

Unused

Input 1 (2) Present

Input 1 (2) Rate Unknown

Input 1 (2) Error

Input 1 (2) Loss

Input 1 (2) 3G

Input 1 (2) HD

Input 1 (2) SD

Other Controls

GPI input: Activates on contact closure – select config 1 or 2

GPI output: Produces an output for:

Config 1 selected, Config 2 selected, Input 1 error, Input 2 error

User memories: Name, save and recall 16 user memories

General Specifications

Electrical:

3 Gb/s SDI, SMPTE ST 424

1.5 Gb/s HD-SDI, SMPTE ST 292

270 Mb/s SDI, SMPTE ST 259-C / DVB-ASI

Connector/format: BNC/75Ω panel jack on standard Grass Valley connector panel

Return loss:

>-15 dB (270 Mb/s, 1.5 Gb/s)

>-10 dB (3 Gb/s)

Output jitter:

SD-SDI 0.2 UI (10 Hz) / 0.2 UI (1 kHz)

3G/HD-SDI 1.0 UI (10 Hz) / 0.2 UI (100 kHz)

Power Consumption

Module power consumption:

4W max. (A Frames)

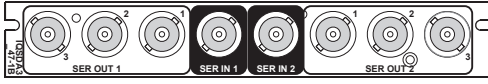
4 PR (B Frames)

With relay rear: 5W (PR) max.

ORDERING

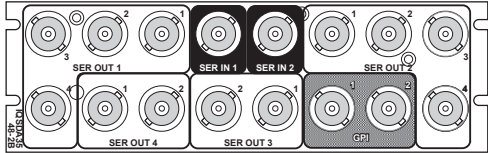
IQSDA3547-1A3, IQSDA3547-1B3

Dual-channel 3G/HD/SD-SDI distribution amplifier with selectable outputs. 2 inputs, 6 outputs selectable per input.



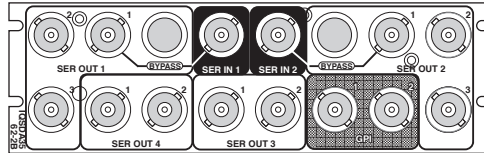
IQSDA3548-2A3, IQSDA3548-2B3

Dual-channel 3G/HD/SD-SDI distribution amplifier with selectable outputs. 2 inputs, 12 outputs selectable per input.



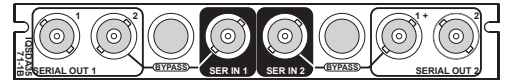
IQSDA3562-2B3

Dual-channel 3G/HD/SD-SDI distribution amplifier with selectable outputs and relay bypass. 2 inputs, 10 outputs selectable per input.



IQSDA3571-1B3

Dual-channel 3G/HD/SD-SDI distribution amplifier with selectable outputs and relay bypass. 2 inputs, 4 outputs selectable per input.



For more details on enclosure types please refer to the IQ Modular Enclosures datasheet.



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